

REMARKS

I. Introduction

In view of the above amendments and the following remarks, reconsideration of the rejections and objections contained in the Office Action of June 24, 2009 is respectfully requested.

By this amendment, claims 1, 2, 4, and 7-12 have been amended and claims 13-20 have been added. Claims 1-20 are now pending in the application. No new matter has been added by these amendments.

The specification has been reviewed and revised. No new matter has been added by these revisions. Entry of the specification amendments is thus respectfully requested.

II. Drawings

On page 2 of the Office Action, the drawings are objected to regarding a minor informality. Replacement drawing sheets are attached herewith in compliance with 37 CFR § 1.121(d) in order to correct the informality; withdrawal of this objection is thus respectfully requested.

III. Specification

On page 3 of the Office Action, the specification is objected to regarding a related informality. The portion of the specification at issue has been amended to correct the informality; withdrawal of this objection is respectfully requested.

IV. Prior Art Rejections

Currently, claims 1-2, 5-8, 11, and 12 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over JP 11-55898 (herein referred to as the '898 reference) and claims 3, 4, 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the '898 reference in view of JP 2003-307212 (herein referred to as the '212 reference).

Claim 1 is patentable over the '898 reference and the '212 reference, whether taken alone or in combination, for the following reasons. Claim 1 requires a fluid dynamic bearing device comprising a housing having an opening at a first end thereof and a bottom portion at a second end thereof; a sealing portion sealing the opening of the housing; a bearing sleeve accommodated in the housing; a shaft member accommodated in the housing; a radial bearing portion having a radial bearing clearance between an outer peripheral surface of the shaft member and an inner peripheral surface of the bearing sleeve, the radial bearing portion radially supporting the shaft member in a non-contact fashion by means of a lubricant film when the shaft member rotates relative to the bearing sleeve; and a thrust bearing portion supporting the shaft member in a thrust direction, wherein a sealing space is provided between an inner peripheral surface of the sealing portion the outer peripheral surface of the shaft member, wherein the inner peripheral surface of the sealing portion includes a protrusion extending radially inwards, the protrusion constituting a first portion of the inner peripheral surface which protrudes from a second portion of the inner peripheral surface, and wherein the shaft member is provided with a small diameter portion, the protrusion and the small diameter portion being axially engaged with each other to prevent the shaft member from coming off.

On page 3 of the Office Action, it is asserted that the washer-like member (4) of the '898 reference corresponds to the sealing portion required by claim 1. However, the washer-like

member (4) of the '898 reference appears to have a single inner peripheral surface extending uniformly in the axial direction of the shaft (1). In contrast, claim 1 has been amended to require that the inner peripheral surface of the sealing portion include a protrusion extending radially inwards, the protrusion constituting a first portion of the inner peripheral surface which protrudes from a second portion of the inner peripheral surface. Because the '898 reference does not disclose a protrusion constituting a first portion of the inner peripheral surface which protrudes from a second portion of the inner peripheral surface, the '898 reference cannot meet the requirements of claim 1.

Further, on page 5 of the Office Action, the '212 reference is cited relied on as disclosing an enlarged portion of the inner peripheral surface of the sealing portion. However, the '212 reference discloses a member (5') which slopes uniformly away from the shaft member, with no protrusion. Because the '212 reference does not disclose a protrusion constituting a first portion of the inner peripheral surface which protrudes from a second portion of the inner peripheral surface, the '212 reference cannot meet the requirements of claim 1. Moreover, the there is no portion of the member (5') of the '212 reference which axially engages a small diameter portion of the shaft member. Because the '212 reference does not disclose a protrusion and a small diameter portion of the shaft member being axially engaged with each other to prevent the shaft member from coming off, the '212 reference cannot meet the requirements of claim 1.

As discussed in detail in the specification, because the configuration of the present invention includes sealing portion with a protrusion extending radially inward and protruding from another portion of the inner peripheral surface, it is possible to enlarge the inner diameter of the sealing portion such that the volume of the sealing space is increased without increasing the axial dimension of the sealing portion. None of the prior art of record discloses the claimed

configuration of the present invention; further, it appears that there would have been no reason to modify any of the prior art of record to yield a combination which would meet the requirements of claim 1. It is thus submitted that the invention of the present application, as defined in claim 1, is not anticipated nor rendered obvious by the prior art, and yields significant advantages over the prior art. Allowance is respectfully requested.

Claims 2-19 depend, directly or indirectly, from claim 1 and are thus allowable for at least the reasons set forth above in support of claim 1. Claim 20 includes the above-discussed requirements of claim 1, and is thus allowable for at least the reasons set forth above in support of claim 1.

In view of the foregoing amendments and remarks, inasmuch as all of the outstanding issues have been addressed, Applicants respectfully submit that the present application is now in condition for allowance, and action to such effect is earnestly solicited. Should any issues remain after consideration of the response, however, the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

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Enclosure: Replacement Sheet for Figure 2.

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